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Judith A. Enck, Regional Administrator
US Environmental Protection Agency, Region 2
290 Broadway
New York, NY 10007

MAR 2 1 2014

Bob Martin, Commissioner
New Jersey Department of Environmental Protection
401 E. State Street
P.O. Box 402
Trenton, NJ 08625-0402

Subject: Planned and ongoing construction activities at Ocean County College, Toms River, Ocean County, New Jersey, associated with Freshwater Wetland File Nos. #1507-09-0147.4 and 1507-12-0022.1

Dear Ms. Enck and Mr. Martin:

The U.S. Fish and Wildlife Service (Service) is writing to you in response to a letter each of our agencies received from the New Jersey Conservation Foundation (NJCF)(copy enclosed). The NJCF requested that the Service and the U.S. Environmental Protection Agency (USEPA) suspend our "Not Likely to Adversely Affect" (NLAA) determination. In a letter dated January 9, 2013, the Service concluded that the planned and ongoing construction phases for the Ocean County College (OCC) expansion project (Project) located in Toms River, Ocean County, New Jersey is NLAA the federally listed swamp pink (*Helonias bullata*). The NJCF letter also requested that the New Jersey Department of Environmental Protection (NJDEP) to "refrain from any further permit considerations (including the March 4, 2014 Wetlands Mitigation Council resolution), and revoke the above Freshwater Wetlands Individual Permits." The NJCF's request to suspend the Service's NLAA determination and revoke permits was based on a review of Service and NJDEP administrative files, and their own findings and conclusions made regarding the Project.

The Service has determined that the issues raised in the NJCF March 3, 2014 letter, represent new and previously unknown hydrologic threats to the OCC swamp pink population. In addition, the Service continues to identify erosion and sedimentation affects at the Project site that threaten the OCC swamp pink population. Based on the issues raised by the NJCF and our own observations of the construction site, the Service is requesting reconsultation with regard to impacts to swamp pink. The Service requests a meeting among the USEPA and NJDEP to

discuss the aforementioned NJCF letter to determine what, if any modifications, studies, or added project features the applicant could implement to address the NJCF findings and the ongoing erosion and sedimentation construction problems the Service had identified. By copy of this letter, the Service is also requesting the applicant suspend any construction activities that may affect the aquatic environment, including any stormwater infrastructure or filling of wetlands.

AUTHORITY

This response is provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to ensure the protection of federally listed endangered and threatened species and the December 22, 1993 Memorandum of Agreement among the USEPA, NJDEP and the Service.

BACKGROUND

On January 9, 2013 the Service concluded that the Project is NLAA swamp pink, subject to the applicant placing conservation easements on two County owned parcels; the implementation of commitments to address an on-going erosion and sedimentation threat to the swamp pink (*i.e.,* retrofitting an existing stormwater drain in the vicinity of parking lot No. 2); and, the incorporation of several protective measures that could be incorporated into a long-term management plan for the OCC complex.

The Service's NLAA determination followed numerous meetings, site visits, conference calls, and e-mails for over 26-months with the USEPA, NJDEP, OCC and their agents, and numerous non-government organizations, including the Barnegat Bay Partnership, to ensure that the OCC's expansion project protected the wetlands and watercourses that supported the OCC swamp pink population. During the 26-months of coordination, the Service identified adverse affects to the wetlands that supported the OCC swamp pink population (*i.e.,* the discharge of untreated stormwater and sediment directly upstream of the swamp pink population) and several potential violations to the Clean Water Act (33 U.S.C. 1344 *et seq.*)(*e.g.,* clearing and the unauthorized filling of wetlands). In addition, the NJDEP's Central Bureau of Water Compliance and Enforcement and the Ocean County Soil Conservation District issued numerous Notices of Violations under their respective authorities for work performed by the OCC.

NEW INFORMATION REGARDING SWAMP PINK

1. Erosion and Sedimentation. During our 26-month review of the Project, the applicant made commitments to ensure that the project would not impact the swamp pink, including the installation of super silt fencing and a stormwater treatment device to control off-site sedimentation and erosion and the placement of conservation easements on two-County owned parcels immediately adjacent to the swamp pink. To our knowledge the super silt fencing and conservation easements have been properly implemented by the applicant. However, the stormwater retrofit device recently installed by OCC continues to be

problematic and appears unable to meet the storm water volumes and velocities. On December 23, 2013, the Service conducted an inspection of the Project site and confirmed that the device continues to result in off-site erosion and sedimentation of the swamp pink habitat and requires immediate attention as it represents a known threat to the OCC swamp pink population. In addition, we observed the 18-inch outfall structure (in the vicinity of the OCC's softball field and upstream of the OCC swamp pink population) that drains basin No. 1 completely filled with sediment and does not appear to be functioning properly.

2. Water Recharge and Hydrologic Impacts. In our NLAA affect determination, the Service did not consider the adverse effects to groundwater recharge due to the OCC Project resulting in the increase of impervious surfaces from 9.97 % to 45.88%. Nor did we anticipate that the Total Suspended Solids (TSS) from the Project site would increase by 20%. Finally, the Service did not consider that the stormwater system designed for conveying water from the newly constructed loop road to Basin No. 6 would divert groundwater flow away from the OCC swamp pink population. Each of these affects represents hydrologic affects to the wetlands that support the OCC swamp pink population and is considered new information not considered in the September 11, 2012, January 9, 2013, and September 26, 2013 informal consultation. Changes to hydrology that could affect base flow of the creek could result in adverse impacts to swamp pink.

REINITIATION OF CONSULTATION

As identified in the Service's January 9, 2013 letter, the Service may reconsider the NLAA determination. This reconsideration can occur should the scope of a project change or if the Service receives new information not considered in a previous affects determination. The Service has concluded that the continued erosion and sedimentation from the OCC project continues to be a threat to the OCC swamp pink population. In addition, the NJCF has identified numerous other potential adverse effects to the swamp pink in their March 3, 2014 letter. Unfortunately, the applicant did not consider these affects in the application material submitted to the Service, nor did the Service conduct an independent assessment of these potential adverse affects in our NLAA determination. Based on the continued erosion and sedimentation that continues to occur and the newly identified potential threats from the OCC Project as identified in the NJCF's letter, the Service has determined that the OCC swamp pink population may be adversely affected by the OCC project.

Pursuant to our December 22, 1993 letter to the USEPA, we are requesting that the USEPA reinitiate consultation with the Service as the current erosion and sediment conditions and the new information presented by the NJCF were not considered in our NLAA determination. We are also requesting the NJDEP request the applicant to refrain from any future construction activities or the awarding of any contracts for work in wetlands or associated with the drainage

system of the loop road and parking lot No. 2, until the USEPA completes its re-consultation with the Service.

Should you have any question regarding this matter, please feel free to contact myself or Steve Mars at 609-383-3938 x 31 or 23, respectively.

Sincerely,

Field Supervisor
Eric Schrading

Encl.
Cf:
USEPA (Montella)
NMFS (Green)
Mitigation Council (6 copies)
NJDEP (Fanz, Jones, Lockwood)
OCC (Larson, Scarentino)
Barnegat Bay Partnership (Hales)

New Jersey Conservation
FOUNDATION

3 March 2014

Via electronic mail

To: **Judith A. Enck, Administrator, USEPA Region 2** enck.judith@epa.gov
Bob Martin, Commissioner, NJDEP Bob.Martin@dep.state.nj.us
Eric Schrading, USF&WS Field Office Supervisor Eric_Schrading@fws.gov

RE: **Ocean County Det. of Engineering Permits #1507-09-0147.4 and #1507-12-0022.1**
Fischer Boulevard Improvements at Ocean County College, Ocean County NJ

Dear Administrator Enck, Commissioner Martin, and Supervisor Schrading:

The New Jersey Conservation Foundation respectfully requests that:

- the US Fish and Wildlife Service and US Environmental Protection Agency immediately suspend their "*not likely to adversely affect determination*" pertaining to federally-threatened swamp pink, *Helonias bullata*, in the above permits, and
- the NJ Department of Environmental Protection refrain from any further permit considerations (including the upcoming March 4, 2014 Wetlands Mitigation Council resolution), and revoke the above Freshwater Wetlands Individual Permits,

until thorough hydrologic analyses are performed and justify a USFWS/USEPA "*not likely to adversely affect determination*" regarding swamp pink.

We have conducted a thorough review of USFWS and NJDEP files, as detailed below. We present findings and conclusions regarding the applicant's failure to submit to the NJDEP sufficient and/or adequate information pertaining to the project's potential impacts to the Swamp Pink population located on the Ocean County College campus.

In a letter of 20 July 2012, from J. Eric Davis, Jr., Field Supervisor, USFWS to Mark Pedersen, Acting Director, Division of Land Use Regulation, NJDEP, on page 3 (last paragraph), USFWS

requested a hydrologic analysis "*to determine the effect, if any, of upland impacts to the swamp pink population.*" An appropriate hydrologic assessment regarding this determination was not submitted by the applicant, nor was an independent review of hydrologic impacts conducted by NJDEP/USFWS/or USEPA. Nevertheless, the US Fish and Wildlife Service and the US Environmental Protection Agency later determined that the project was "*not likely to adversely affect swamp pink.*" This NLAA determination was flawed and based on erroneous or incomplete information.

No appropriate hydrologic assessment on potential impacts to swamp pink was ever submitted completed by the applicant, nor was any independent review of hydrologic impacts completed by the NJDEP/USFWS/or USEPA. The agencies' conclusions that the project would not adversely affect the swamp pink are therefore flawed and based on erroneous or incomplete information, or reports that were not germane to the request made by the USFWS on 20 July 2012.

We have conducted a thorough review of the USFWS and NJDEP files, and below we present findings and conclusions that indicate the project will likely result in two recognized negative impacts which are both recognized as threats to swamp pink in the federal recovery plan. These threats to the swamp pink population are:

- negative alterations to infiltration and water recharge into the creek, and
- degradation of water quality in the creek.

The existing swamp pink population will experience serious decline or likely be extirpated because of these two impacts that will occur, and may already be occurring due to ongoing sedimentation and other problems from project construction.

Findings and Conclusions:

Based on our review of the materials submitted by the T&M Associates in support of the freshwater wetland permit application we have concluded that an insufficient and inappropriate level of analysis was conducted relative to the project's potential impacts to Swamp Pink. The information that was submitted lacks a sufficiently comprehensive analysis of how the infrastructure associated with the stormwater management system servicing the roadways, parking lots, new buildings and other related site improvements supports the applicant's conclusion that the project does not impact the hydrology of Swamp Pink wetland system. It also does not specifically address how the proposed stormwater management system adequately decreases the post-development pollutant load.

Therefore, it is our position that the analyses conducted by T&M Associates were flawed and incomplete, thus, USF&WS, USEPA, and NJDEP's collective conclusion that the project does not impact the site's Swamp Pink population is unsupported by the materials submitted by the applicant and must be reversed. Until such time as more detailed information is provided regarding the effects that this project may have on the swamp pink wetland, a final permit decision is premature. Thus, all activity, considerations, and decisions regarding the NJDEP's

Freshwater Wetland Permits should be suspended, at least until a more thorough and comprehensive analysis of the development's potential impacts to the hydrology (including all potential changes to base flow and ground water recharge) to the swamp pink wetlands is conducted and the findings re-submitted to the NJDEP and other relevant regulatory agencies for review.

Overview of Ecology of Swamp Pink:

Swamp pink (*Helonias bullata*) is listed as a federally threatened plant. It is best characterized as a shade-tolerant, emergent wetland plant that does best in slow moving headwater systems. Swamp pink is very shade tolerant preferring sites with well-established canopy cover (20-100%). An ecological trait of the plant is its growth on hummocks. As noted by the USFWS, "these micro-topographic conditions may be an important component of swamp pink habitat". It is therefore often found in forested wetland sites characterized by saturated soils and shallow, slow moving standing water.

It is well established in the literature that the primary threats to swamp pink populations are due to hydrologic modifications and increases in pollutant (nutrient) loading. Changes in the hydrologic regime of a site, even what may be termed minimal or subtle alterations in groundwater and surface water hydrology, have been directly linked to the loss of this species. Again as noted by the USFWS, "hydrologic changes include increased sedimentation from off-site construction, groundwater withdrawals or diversion of surface water, reduced infiltration (recharge) of groundwater, increases in erosion, increases in the frequency, duration, and volume of flooding caused by direct discharges to wetlands (such as stormwater outfalls), and increased runoff from upstream development".

Overview of Proposed Site Development Activities:

OCC is situated within two separate drainage areas. As per the site description prepared by T&M and presented in their Stormwater Management Report[1], in its pre-developed state the college property has an east-west drainage divide running along the western edge of the lower mall and a north-south drainage divide running along the southern end of Parking Lot 2. The areas west and north of the drainage divide flow to a tributary of Silver Bay. The lands draining to this unnamed tributary to Silver Bay are the subject of our review and the focus of the reports prepared and submitted by T&M Associates as part of the various permits sought from the NJDEP for this project.

A significant element of the proposed site development affecting the Silver Bay tributary drainage area involves the modification of an internal roadway, Loop Road that connects the upper campus to College Drive, near existing Parking Lot 2. This roadway runs along the northern edge of the currently developed portions of the campus, and south of the known

[1] Ocean County College Stormwater Management Report, Prepared by T&M Associates, last revised June 25, 2011.

Swamp Pink population. Part of this roadway improvement project involves the construction of Basin 6, located adjacent to the intersection of Loop Road and College Drive.

As per the information provided in Appendix G of the Stormwater Management Report, following site development, 45.88% of the site will be impervious. Under pre-existing conditions, only 9.97% of the site was impervious. Additionally, most if not all of the soils that will be disturbed are designed Hydrologic Soil Group A and B, meaning that they have very good to good infiltration capabilities. None of the new impervious cover will be porous/pervious. Also 50% of the stormwater will be collected and conveyed via storm sewer. This is a substantial and significant increase in impervious substrates and surface conveyance via storm sewer, where previously excellent recharge was maintaining base stream flow to the swamp pink population.

Technical Basis for Our Conclusion of Inadequate Impact Analysis:

Our conclusion that the NLAA determination should be suspended and the NJDEP permits should be revoked is based on the applicant's failure to submit to the NJDEP sufficient and/or adequate information pertaining to the project's potential impacts to Swamp Pink. Our conclusion is based on the following:

1. The Hydraulic Report prepared by T&M Associates[2], focuses on the sizing of the road way culverts for the new roadway system. The report pertains to the three new road stream crossings and the construction of the required culverts. This report has little bearing or relevance to the 20 July 2012 request by the USFWS, regarding the full spectrum of hydrologic impacts that need to be assessed pertaining to a NLAA determination for the Swamp Pink population.

2. The Stormwater Management Report prepared by T&M Associates analyzes the pre- and post-construction stormwater management plan developed for the campus expansion. This includes the construction of new basins servicing the campus expansion as defined in the Ocean County College 2008 Master Plan. Included in this are the proposed improvements to Loop Road including the construction of the Basins 1, 2, 3, and 6, all of which are germane to our analysis of the site's impact on Swamp Pink.

3. The Stormwater Management Report prepared by T&M Associates fails to reference Swamp Pink, riparian area impacts, or wetland impacts.

4. While the Stormwater Management Report prepared by T&M Associates acknowledges that the project affects wetlands and results in a substantial clearing of presently wooded open space areas, the report is primarily focused on demonstrating that the proposed stormwater management system satisfies the NJDEP stormwater management requirements for new development as specified in NJAC 7:8. The report

[2] Ocean County College Hydraulic Analysis Report, Prepared by T&M Assoc., dated 2 Dec 2009, revised 2 Oct 2011.

basically concludes that because the system satisfies the **minimum requirements** of the regulations that there will be no stormwater related impacts. As per the report:

The water quality goals of the proposed project are accomplished through the use of infiltration basins. The basins address water quality by infiltrating the NJDEP water quality storm from the site. The calculations are shown in Appendix C. The calculation show that runoff from water quality storm is completely infiltrated. In accordance with the NJDEP BMP Manual the retention basins provides 80% removal of total suspended solids. Therefore, the basins satisfy water quality regulations.

Basin 6 which manages the runoff from a portion of the Loop Road is designated by T&M in their stormwater report as an infiltration basin. The TSS load reduction ascribed by the NJDEP for infiltration basins as per the Stormwater Best Management Practices Manual is 80%. The Stormwater Management Report prepared by T&M Associates therefore acknowledges there will be a 20% increase in the post-development TSS loading to the headwater of Silver Bay. The report does not address the post-development increase in nutrient loading. The increased nutrient load directed to swamp pink wetlands as well as other nutrient limited wetland systems can also result in negative impacts to these sensitive habitats.

5. The unnamed tributary of Silver Bay is located within HUC-14 02040301050040. According to the attached map, which was prepared from NJDEP's digital database, the subject headwater stream is upgradient of a segment mapped as Category 1 by the NJDEP. The NJDEP, also in recognition of the stream's habitat properties, specifically the fact that it supports both State and Federal listed species, has established the riparian buffer at 300' and the freshwater wetland transition area (buffer) at 150'. These buffer designations are reserved for ecosystems having unique and/or exceptional ecological significance. As per NJAC 7:9B, Category 1 waters are to be protected "**from measurable changes in water quality based on exceptional ecological significance, exceptional recreational significance, exceptional water supply significance or exceptional fisheries resource(s) to protect their aesthetic value (color, clarity, scenic setting) and ecological integrity (habitat, water quality and biological functions)".**

   Additionally, "Category One Waters shall be protected from any **measurable changes (including calculable or predicted changes) to the existing water quality**. Water quality characteristics that are generally worse than the water quality criteria, except as due to natural conditions, shall be improved to maintain or provide for the designated uses where this can be accomplished without adverse impacts on organisms, communities, or ecosystems of concern.

6. As noted above, the post-construction TSS loading increases by 20%, even with the implementation of the proposed stormwater management measures. As per Table 4.2 of the NJDEP Stormwater Best Practices Manual, the post development nitrogen load can be expected to increase by at least 50% and the phosphorus load by 40%. This is

based on applying the same pollutant reduction coefficients utilized by T&M to arrive at their reported TSS load reduction. Thus, even with the stormwater management system proposed by T&M there will be an acknowledged impact to the water quality of the headwater tributary of Silver Bay. This increase in pollutant loading contradicts the NJDEP's anti-degradation standards for C-1 waters. This impact was not addressed in T&M's Stormwater Management Report. As previously noted, an increase in TSS and nutrient loading could result in the degradation of the existing Swamp Pink population. The report does not address this impact.

7. The Stormwater Management Report prepared by T&M Associates acknowledges there will be changes in the post development surface drainage areas. This is reflected in the pre- and post-development hydrologic calculations and is also illustrated by the Drainage Area Maps provided in Appendix I of the report. The report does not discuss how these changes in the pre- and post-drainage areas affects the total surface flow to the Swamp Pink population. The proposed modification of Loop Road including the construction of Basin 6 will divert surface flow away from the Swamp Pink population. As currently designed, T&M Associates stormwater collection system will intercept surface flow, convey that flow to Basin 6, and discharge the detained flow down gradient of the Swamp Pink wetland. As previously noted Swamp Pink are sensitive to even minimal changes in hydrology. The report does not discuss this change to the hydrology of the Swamp Pink ecosystem or its potential impact on the existing population.

8. The construction of the stormwater system along Loop Road will require the installation of a significant pipe system and catch basins used to collect and convey stormwater runoff to Basin 6. The pipe network runs primarily along the edge of Loop Road, upgradient of the Swamp Pink population. The installation of this pipe network will involve a considerable amount of excavation, compaction and alteration of the native soils. The pipe network and associated bedding material will essentially function as a subsurface "barrier" that will either impede the flow of groundwater to the down gradient Swamp Pink population or capture it in the pipes bedding material. The Stormwater Report does not address this potential impact to the Swamp Pink.

9. The Compliance Statement and Environmental Report, Flood Hazard Area Individual Permit and Hardship Exception Application, prepared by T&M Associated, dated November 2011 includes a Pine Barrens Treefrog Habitat Evaluation and Swamp Pink Survey, prepared by Amy S. Greene Environmental Consultants, Inc., dated August 13, 2009. The T&M report nor the accompanying ASGECI report discuss any of the potential impacts to the Swamp Pink attributable to the above noted changes in the nutrient loading or alteration of the site's hydrology.

10. An ASGECI report entitled Knieskern's Beaked Rush (*Rhynchospora kneiskernii*) Survey and Swamp Pink (*Helonias bullata*) Survey for the Ocean County College Existing Stormwater Outfall Basin #1 and proposed Stormwater Outfall Basin, Toms River

Township, Ocean County, NJ dated November 27 2012 correctly indicates that Swamp Pink are "very sensitive to changes in hydrologic conditions and silt accumulation". The comment goes on to state stormwater basin #1 discharge "could impact the swamp pink population". We have examined this outfall, which appears to be old and undersized, and it already exhibits serious scouring and sedimentation issues.

11. **This ASGECI report on the basin #1 and its discharge also stated that "Further studies are needed to determine whether or not the outfall could impact the hydrology of the water table associated with the unnamed tributary to Silver Bay to the extent that it would impact the Swamp Pink population". It is our understanding that no studies have been done in response to the recommendations of T&M Associate's (and therefore the applicant's) environmental expert.** It is clear that the large area that drains to the new basins 1, 2, and 3 was previously undeveloped and uncompacted forest soil, and provided 100 % infiltration. Lined, gravel water-quality wetland basins (about half of basin 1, and all of basins 2 & 3) are not infiltrating; therefore a large amount of infiltration from this area has been converted to surface flow into the basin 1 discharge. The cumulative impact of these basins on the loss of base flow, due to lost infiltration, in the stream housing the swamp pink population has not been determined. Again, hydrologic assessments requested by the USFWS and recommended by ASGECUI, the applicant's consultant, have not been conducted. There is no evidence to support the "not likely to adversely affect" determination regarding Swamp Pink.

12. The concerns for sedimentation-related impacts to Swamp Pink also need to be considered for the stream that drains Parking Lot 2 to the unnamed tributary to Silver Bay. The stream channel is currently unstable, and large of amount of sedimentation is occurring in and along the channel. It is apparent that quick-fix attempts have been made to reduce existing erosion problems at the drain and outfall at the edge of the parking lot and roadway, but these attempts have been unsuccessful. Water continues to bypass the drain, carrying sediment over the road, and eroding around the outfall structure. As indicated in the above referenced ASGECI report, sediment loads such as this can negatively affect the Swamp Pink.

There is simply no question that in issuing the wetland and flood hazard area permits associated with the proposed expansion of the OCC campus, NJDEP failed to take into account the full potential impacts to the site's Swamp Pink population attributable to changes in the post-development nutrient and sediment loads or the changes in the site's post development surface and groundwater hydrology. The reports submitted in support of the permit application by T&M Associates, including the Swamp Pink survey report prepared by Amy S. Greene Environmental Consultants, Inc. did not address any of the above noted impacts or provide any mitigating measures that would reduce or avoid these very probable impacts.

ASGECI's November 27, 2012 report discusses concerns related to Swamp Pink and changes in hydrology, and recommends additional studies. However, the request for additional studies

was based solely on the discharge from Basin #1; the impact of the entire stormwater infrastructure on the hydrology of the Swamp Pink wetlands also warrants additional study. Given the sensitivity of Swamp Pink to minimal changes in hydrology and increases in sediment and nutrient loading, the USF&WS NLAA determination for swamp pink and the NJDEP issuance of the permits was premature and was not predicated on their receipt of a complete and thorough analysis of the development's impacts to the site's Swamp Pink population. The applicant should perform a hydrologic analysis of the entire project's cumulative impacts to ground water recharge to the swamp pink wetland. This analysis should be sufficiently comprehensive to address the cumulative impacts of all of the proposed changes to the hydrology and nutrient changes related to this project that have been discussed in this set of findings and conclusions.

Additionally, the unnamed headwater tributary of Silver Bay, the watershed of which supports Swamp Pink, is located up-gradient of a delineated C-1 segment. As such, it is our position that the entire tributary must be treated as being C-1, since it is located in the same HUC-14 as a C-1 stream. (See figure 1 below)

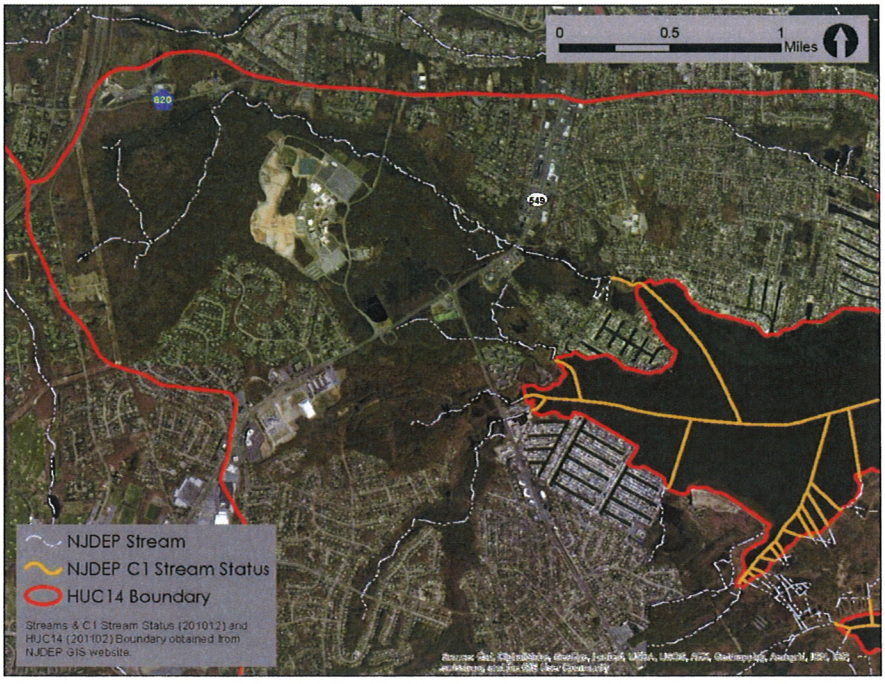

Figure 1:
Headwater tributary with swamp pink located up-gradient of delineated C1 segment.

The proposed development will result in an increase in the sediment and nutrient load to this stream. ***This increase in loading contravenes the State's anti-degradation standards for C-1 waters.*** Based on this finding, the NJDEP should revoke the permits thus far issued by the Department for this development.

In summary, we have presented findings and conclusions which detail numerous unresolved potential impacts to the swamp pink population, the cumulative impact of which will seriously degraded or possibly result in the extirpation of the population. These impacts, which have yet to be analyzed regarding their affects on the swamp pink population, include:

- Significant loss of water infiltration throughout the site, as lined, water quality basins convert precipitation to surface discharge, and as large subsurface pipe systems act as barriers to underground recharge of the tributary containing the swamp pink population,
- Significant catchment of surface water by engineered structural elements, much of which is conducted to basin 6, thereby being discharged downstream of the swamp pink population,
- Increased storm discharge from Basins 1, 2, and 3 at an old outfall structure that already has existing scouring and sedimentation problems, with corresponding future potential to create serious sedimentation issues very near the swamp pink population,
- A 20% increase in TSS as reported by the applicant into the headwater stream supporting the swamp pink, which will not only add to the cumulative negative impacts on swamp pink, but along with other impacts noted throughout this document, cannot meet the anti-degradation standards for C1 waters.

Based on the findings and conclusions presented and detailed above, and until such time that a sufficient hydrologic assessment regarding potential impacts to swamp pink is conducted and presented by the applicant, the New Jersey Conservation Foundation respectfully requests that The US Fish and Wildlife Service and US Environmental Protection Agency immediately suspend their *"not likely to adversely affect determination,"* and the NJDEP suspend all actions and decisions regarding permits for this proposed development, including the consideration of a resolution by the Freshwater Wetland Mitigation Council scheduled for March 4, 2014, and also revoke all permits until the State's anti-degradation standards for C-1 waters are satisfied.

Respectfully submitted,

Michele Byers, Executive Director, NJCF

Emile DeVito, Ph.D., Manager of Science and Stewardship, NJCF